

Polypleurum wallichii (R. Br. ex Griff.) Warm. (Podostemaceae): A new plant record for South India

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Abstract

Polypleurum wallichii (R. Br. ex Griff.) Warm. (Podostemaceae) is reported for the first time in South India. Description and illustration have been provided to facilitate easy identification.

The family Podostemaceae is a highly specialised group of angiosperms growing only in swift-flowing streams of the tropics. In India there are ten genera and twenty species of the family (Willis, 1902, Nagendran *et al.*, 1976-77). The genus *Polypleurum* (Tayl. ex Tul.) Warm. is an asiatic genus represented by seven species (Cusset, 1992). In India this is the largest genus with 5 species. Of these, three species namely *P. filifolium*, *P. munnarensense* and *P. stylosum* have been reported from southern Part of Western Ghats. Now, *P. wallichii*, so far known to be distributed in North East India and Burma, is also being reported from this area for the first time.

Polypleurum is a highly polymorphic genus with very distinct vegetative and reproductive phases. Because of the polymorphic nature, identification at specific level is extremely difficult, especially with the reproductive phase alone. Present report is the result of field observations during different seasons and in diverse localities. A brief description of the species and updated nomenclatural citation are given below.

- Polypleurum wallichii*** (R Br. ex Griff.) Warm., Danske. Vidensk. Selsk. Skrift. ser. 6, Nat. Math. 11 (1); 15. 1901; Nagend. *et al.*, J. Mysore Uni. sect. B. 27: 184. 1976-77; Cusset, Bull. Mus. Natl. Hist. Nat. Paris 4(14): 42. 1992.
- Podostemon wallichii*** R. Br. ex Griff., Asiat. Res. 19: 103. tab. 17. 1836, Hook. f., Fl. Brit. India 5: 67. 1886; Griff., Notul. Pl. Asiat. 4: 376. 1854 (wallichiana).
- Dicraea wallichii*** (R. Br. ex Griff.) Tul., Ann. Sc. Nat. ser. 3, 11: 101. 1849; Wight, Icon. Pl. Ind. Or, 5: 33, t. 1916. 1852; Willis, Ann. Roy. Bot. Gard. Peradenya 1(3): 223. 1902.
- Dicraea minor*** Wedd. in DC., Prodr. 17: 71. 1873; Willis, Ann. Roy. Bot. Gard. Peradenya 1(3): 222. 1902.

Polypleurum wallichii, new record for South India

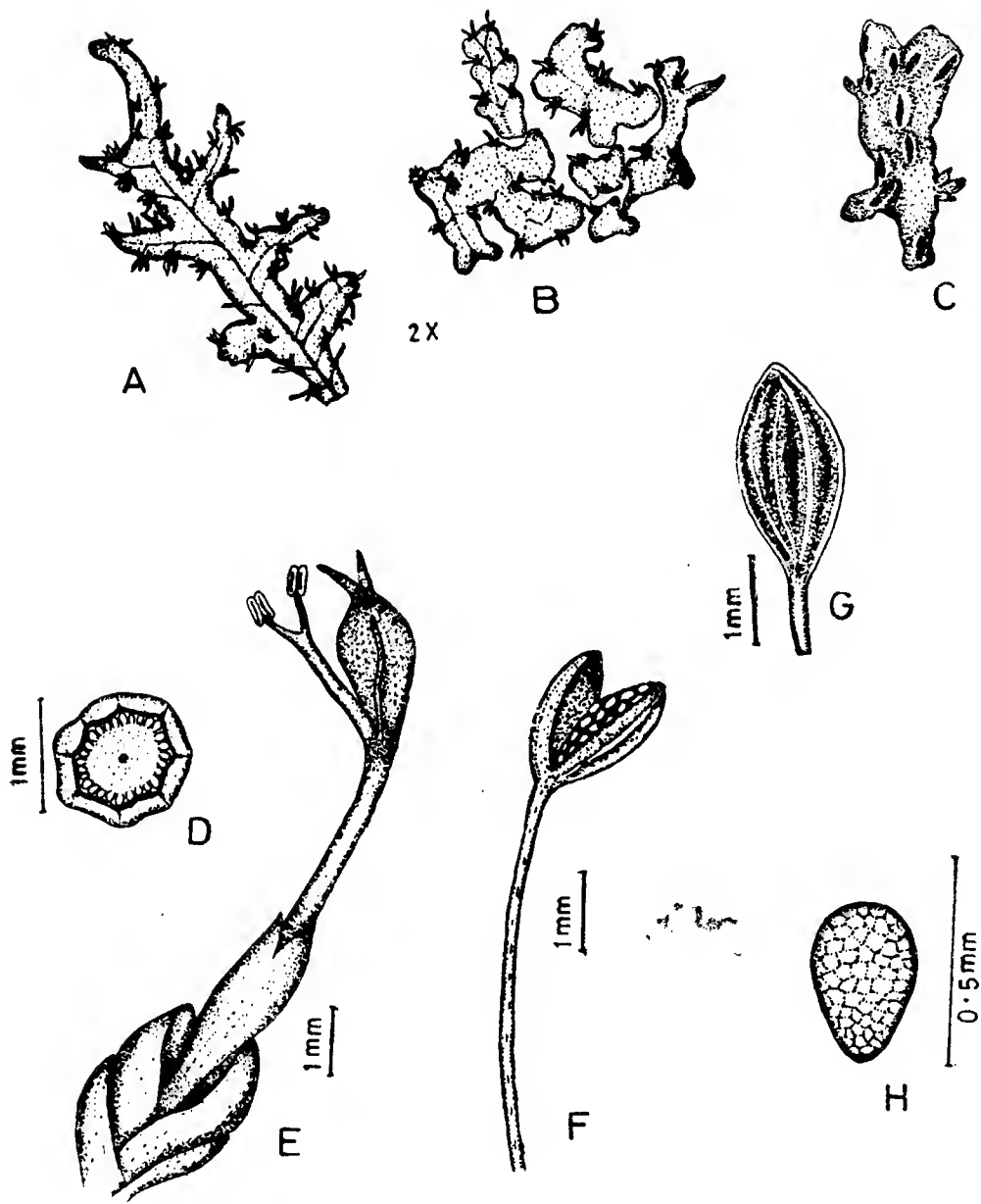


Fig. 1. *Polypleurum wallichii*, A. & B. Young thalli with leaves, C. Ventral side of thallus showing haptera, D. Ovary C. S. E. Flower, F. Mature capsule after dehiscence, G. Capsule H. Seed.

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Podostemon minor (Wedd.) Benth. in Benth. & Hook. f., Gen. Pl. 3: 112. 1880; Hook. f., Fl. Brit. India 5: 67. 1886.

Polypleurum minor (Wedd.) Nagend. et al., Pl. Syst. Evol. 128: 217. 1977. (Fig. 1)

Aquatic herbs on submerged rocks in swift-flowing streams. Plant body thalloid, fleshy, more or less creeping, adpressed to the rock or attached at certain points only with the help of haptera. Thallus green or mauve coloured, irregularly branched, 3–6 cm long and 0.5–0.7 cm wide. Secondary shoots marginal with one or two pairs of subulate leaves. Flowers zygomorphic, pedicellate; bracts usually 2 pairs, fleshy, imbricate, keeled and raised above the thallus. Spathe 3–4 mm long, irregularly splitting at apex. Pedicel 6 mm long. Stamens 2, monadelphous; anthers bilobed; pollen in diads; staminodes on either side of the stamenlinear, 1 mm long. Ovary ellipsoid; stigma 2, unequal and bent downward in bud; ovules less than and hundered on axile placentation. Capsule 6–8 ribbed, isolobous, both halves persistent after dehiscence; fruiting pedicel up to 1 cm long; seeds obovoid and smooth.

This species can be distinguished from the closely allied *P. stylosum* by the following characters:

P. stylosum

1. Thallus up to 40 cm long; attached at base; not creeping.
2. Pedicel 3–4 cm long.
3. Seeds per capsule more than 200.

P. wallichii

1. Thallus not more than 10 cm long; creeping and attached all along or at certain points.
2. Pedicel 0.7–1 cm long.
3. Seeds per capsule less than 100.

Of the two varieties described by Willis (1902), our specimens belongs to *P. wallichii* var. *hasiana* Willis.

Flowering: Dec.-Jan. Fruit: Mar.-May

Distribution: North East India, Burma and Western Ghats.

Specimens studied: Raveendran 52003 (Kudianmala, Kannur Dt.); Raveendran 52013 (Muthukad, Calicut Dt.); Raveendran 52035 (Karappara, Palakkad Dt.).

Acknowledgement

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- Willis, J. C. 1902. A revision of the Podostemaceae of India and Ceylon. *Ann. Roy. Bot. Gard. Peradeniya* 1 (3): 181-280.